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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/582,584

05/25/2007

Noriyuki Suzuki

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1777

38834

7590

07/06/2009

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP  
1250 CONNECTICUT AVENUE, NW  
SUITE 700  
WASHINGTON, DC 20036

EXAMINER

SALVITTI, MICHAEL A

ART UNIT

PAPER NUMBER

1796

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/582,584	<b>Applicant(s)</b> SUZUKI ET AL.	
	<b>Examiner</b> MICHAEL A. SALVITTI	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/12/2006, 09/11/2006, 10/17/2006, 12/19/2006,</u>           | 6) <input type="checkbox"/> Other: _____                          |
| <u>07/14/2008.</u>   |   |



## **DETAILED ACTION**

### ***Claim Objections***

Claim 8 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 6, on which claim 8 is dependent, recites a narrower range (<2.0%) than the range of <3.0% recited by claim 8.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "should not be higher than 2.0%" in claim 6 is a relative term which renders the claim indefinite. The term "should not be higher 2.0%" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. For the purposes of further examination, the claim will be examined as meaning "is less than 2.0%".

The term "should not be lower than 150°C" in claim 6 is a relative term which renders the claim indefinite. The term "should not be lower than 150°C" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. For the purposes of further examination, the claim will be examined as meaning "is less than 150°C".

The term "should not be higher than 3.0%" in claim 7 is a relative term which renders the claim indefinite. The term " should not be higher 3.0%" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. For the purposes of further examination, the claim will be examined as meaning "is less than 3.0%".

The term "should not be higher than 3.0%" in claim 8 is a relative term which renders the claim indefinite. The term " should not be higher 3.0%" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. For the purposes of further examination, the claim will be examined as meaning "is less than 3.0%".

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 2001/088035 to *Suzuki et al.* (for translational purposes English equivalent US 2004/0024139 A1 is being referenced, hereinafter referred to as *Suzuki '139*) in view of U.S. Patent No. 4,647,650 to *Sasaki et al.*

Regarding claims 1 and 2: *Suzuki '139* teaches a polyester resin composition comprising a polyalkylene terephthalate (polyethylene terephthalate, PET) and a layered compound (A-1 through A-6; see Table 3, ¶ [0144]).

*Suzuki '139* is silent regarding whether the acid value of the polyester resin utilized in making the composition is below 30  $\mu\text{eq/g}$ . *Sasaki* teaches polyester resins having an acid value of 11  $\mu\text{eq/g}$  (Examples 2-3 and 6 in Table). *Suzuki '139* and *Sasaki* are analogous art in that they are drawn to the same field of endeavor, namely synthesis of filled polyester resins suitable for molding applications. At the time of the invention, it would have been obvious to a person having ordinary skill in the art to use a polyester with a low acid value, as taught by *Sasaki* with the composition of *Suzuki '139*, with the motivation of obtaining a composition having a high intrinsic viscosity (*Sasaki* col. 1, lines 60-65), stated to be preferable for forming molding compositions (*Sasaki* col. 1, lines 15-29).

Regarding claim 3: *Suzuki '139* teaches the layered composition treated with a polyether compound (see abstract).

Regarding claim 5: *Suzuki* '139 teaches molded articles made from the composition ( $\text{¶}$  [0101]).

Claims 1-2 and 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,583,208 to *Suzuki* (hereinafter referred to as *Suzuki* '208) in view of U.S. Patent No. 4,647,650 to *Sasaki*.

Regarding claims 1 and 2: *Suzuki* '208 teaches a polyester resin composition comprising a polyalkylene terephthalate (PET and PBT; col. 21, lines 47-53) and a layered compound (phyllosilicate; col. 21, lines 25-35).

*Suzuki* '208 is silent as to whether the acid value of the polyester resins are below below 30  $\mu\text{eq/g}$ . *Sasaki* teaches polyester resins having an acid value of 11  $\mu\text{eq/g}$  (Examples 2-3 and 6 in Table). *Suzuki* '208 and *Sasaki* are analogous art in that they are drawn to the same field of endeavor, namely synthesis of filled polyester resins suitable for molding. At the time of the invention, it would have been obvious to a person having ordinary skill in the art to use a polyester with a low acid value, as taught by *Sasaki* with the composition of *Suzuki* '208, with the motivation of obtaining a composition having a high intrinsic viscosity (*Sasaki* col. 1, lines 60-65), which is preferable for forming molding compositions (*Sasaki* col. 1, lines 15-29).

Regarding claim 4: *Suzuki* '208 teaches the layered compound treated with a silane (see abstract).

Regarding claim 5: *Suzuki* '208 teaches molded articles made from the composition (col. 3, lines 15-16).

Regarding claims 6-8: *Suzuki '208* teaches a deflection temperature under load of greater than 150°C for all examples (Table 4).

*Suzuki '208* does not state the diffuse reflectance of the surface provided with an aluminum layer without primer. However, this property has been held to be intrinsic for the following reason: the applicant admits that polyester resin formed from the combination of *Suzuki '208* and *Sasaki* intrinsically have low diffuse reflectance characteristics (page 4, lines 19-25 of instant specification). At the time of the invention, it would have been obvious to a person having ordinary skill in the art to combine *Suzuki '208* and *Sasaki*, with the motivation of creating a coating showing a diffuse reflectance of less than 2.0%.

### ***Prior Art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- U.S. Patent No. 5,264,529 to *Nozaki et al.* teaches low acid value (20  $\mu\text{eq/g}$ ) polyesters as powder coatings.
- US 2005/209435 teaches low acid value PET as molding compositions.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL A. SALVITTI whose telephone number is



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(571)270-7341. The examiner can normally be reached on Monday-Thursday 8AM-7PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571) 272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. A. S./  
Examiner, Art Unit 1796

/David Wu/  
Supervisory Patent Examiner, Art Unit 1796